

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(currently amended)** A method [[for]] of spraying coating liquid, said method comprising the steps of: wherein

spraying the coating liquid in form of a spray jet is sprayed from a spray system [[(2)]] through a liquid atomizer of a spray system [[(4)]] in the form of an irrotational nozzle or in the form of a rotating rotary atomizing element onto an object to be coated; and characterized in that controlling a property of the microclimate in said spray jet is controlled by metering an accessory liquid [[(18)]] being metered into the spray jet; [[(14)]] of coating liquid wherein said accessory liquid being metered into said spray jet at a location outside said liquid atomizer.

B15
2. **(currently amended)** The Spraying method as claimed in claim 1, characterized in that wherein said metering comprises depositing the accessory liquid (18) is fed to [[the]] a starting zone of the spray jet [[(14)]] before said spray jet attains its full diameter.

3. **(currently amended)** The Spraying method as claimed in claim [[2]] 1, characterized in that wherein

said liquid atomizer has a front end from which said spray jet begins to travel toward the object to be coated; and

said metering comprises depositing said accessory liquid into said spray jet at said front end or at a location in a downstream vicinity of said front end the accessory liquid is fed from

~~the front end of the liquid atomizer or shortly downstream of it to the spray jet.~~

4. **(currently amended)** The Spraying method as claimed in claim 1, characterized in that wherein said metering comprises depositing the accessory liquid ~~into the (18) is fed in distributed manner over at least a portion of the periphery of the spray jet (14) to this spray jet at a number of locations outside the liquid atomizer, said locations being distributed circumferentially over at least a portion of said spray jet.~~

5. **(currently amended)** A method of spraying coating liquid, said method comprising the steps of:

spraying the coating liquid in form of a spray jet from a liquid atomizer of a spray system onto an object to be coated; and

controlling the microclimate in said spray jet by metering an accessory liquid into the spray jet;

B15
wherein said metering comprises Spraying method as claimed in claim 1, characterized in that

depositing at least a portion of the accessory liquid [[(18)]] is deposited on an externally peripheral terminal zone [[(46)]] of the liquid atomizer, [[(4)]] and then is guided by using said atomizer to guide said portion of the accessory liquid into the spray jet [[(14)]].

6. **(currently amended)** The Spraying method as claimed in claim 1, characterized in that wherein said metering comprises depositing the accessory liquid ~~from (18) is fed through at least one nozzle aperture [[(26)]] which is configured at [[the]] a front end segment of the spray system [[(2)]]~~, in the form of an unbroken jet, to the spray jet [[(14)]].

7. **(currently amended)** The Spraying method as claimed in claim 1, characterized in that wherein

the liquid atomizer [[(4)]] is a rotary atomizing element, said atomizing element having a front end facing the object, the front end having an external surface, an internal surface that defines an inner passage for delivering the coating liquid, and an atomizing edge at the boundary of the internal and external surfaces; and in that

said metering comprises dripping the accessory liquid [[(18)]] is dripped onto the external surface of the atomizing element the terminal zone (46) of the external periphery of the rotary atomizing element (4) and then is flung off said zone (46), on account of latter's centrifugal forces, into the spray jet (14).

8. (currently amended) A method of spraying coating liquid, said method comprising the steps of:

B15
spraying the coating liquid in form of a spray jet from a liquid atomizer of a spray system onto an object to be coated; and

controlling the microclimate in said spray jet by metering an accessory liquid into the spray jet;

wherein

said spray system further includes Spraying method as claimed in claim 1, characterized in that a system component in [[(4,)]] which shall make contact the spray system with the coating liquid being delivered to be sprayed in form of said on its way to the spray jet; and [[(14,)]] is cooled by a fluid

said method further comprises the step of cooling said system component by a fluidic and cooled coolant, thereby cooling the coating liquid by virtue of thermal [[(52)]] and in that this cold of the coolant is transmitted through the cold conductivity of the system component [[(4)]] to the spray coating liquid.

9. (currently amended) A coating-liquid spray system, comprising: containing a liquid atomizer [[(4)]] in the form of an irrotational nozzle or in the form of a rotating

rotary atomizing element to spray the for spraying a coating liquid in form of a spray jet onto an object to be coated, said liquid atomizer having a front end adapted to face the object to be coated, the front end having an external surface, an internal surface that defines an inner passage for delivering the coating liquid, and an atomizing edge at the boundary of the internal and external surfaces from which atomizing edge the spray jet begins to travel toward the object in operation; and [[,] characterized in that it comprises

an accessory-liquid feed unit [[(16)]] fitted with at least one discharge outlet for metering an [[(26)]] to meter the accessory liquid [[(18)]] into the coating liquid's spray jet; [[(14)]] wherein said discharge outlet is located outside said inner passage.

B15
10. (currently amended) The [[Spray]] system as claimed in claim 9, characterized in that wherein the discharge outlet accessory liquid's feed unit [[(16)]] is located designed to feed the accessory liquid [[(18)]] into [[the]] an initial zone of the spray jet [[(14)]] before said spray jet attains its maximum diameter.

11. (currently amended) The [[Spray]] system as claimed in claim 9, characterized in that wherein the discharge outlet accessory liquid feed unit [[(16)]] is located in a vicinity of said front end so as designed to feed the accessory liquid [[(18)]] into the spray jet [[(14)]] at the front end of the liquid atomizer [[(4)]].

12. (currently amended) The [[Spray]] system as claimed in claim 9, characterized in that wherein the accessory-liquid feed unit includes several said discharge outlets positioned radially outwardly from the external surface of the front end and circumferentially of said front end [[(16)]] is designed to feed the accessory liquid [[(18)]] at several locations distributed around the spray jet [[(14)]] into this jet.

13. (currently amended) A coating-liquid spray system, comprising:

a liquid atomizer for spraying a coating liquid in form of a spray jet onto an object to be coated; and

an accessory-liquid feed unit fitted with at least one discharge outlet for metering an accessory liquid into the spray jet;

wherein Spray system as claimed in claim 9, characterized in that the accessory-liquid feed unit [[(16)]] is designed configured to deposit at least a portion of the accessory liquid [[(18)]] onto a front terminal zone [[(46)]] of [[the]] an external periphery of the liquid atomizer [[(4)]] and then to guide said portion of said accessory liquid from said zone [[(46)]] into the spray jet [[(14)]].

B15
14. **(currently amended)** The [[Spray]] system as claimed in claim 9, characterized in that wherein at least the minimum of one said discharge outlet [[(26)]] of the accessory liquid [[(18)]] is located radially, outwardly with respect to the external surface of the front end configured at the front terminal zone of the spray system [[(2)]].

15. **(currently amended)** The [[Spray]] system as claimed in claim 14, characterized in that wherein

the liquid atomizer [[(4)]] is a rotary atomizing element; and in that the accessory-liquid feed unit [[(16)]] is configured designed to drip the accessory liquid [[(18)]] onto the front terminal zone (46) of the external surface periphery of the front end of the rotary atomizing element and to fling the dripped accessory liquid (18) from the rotary atomizing element by means of latter's centrifugal forces into the spray jet.

16. **(currently amended)** The [[Spray]] system as claimed in claim 14, characterized in that wherein the accessory-liquid feed unit is configured to (16) inclusive its minimum of one discharge (26) is designed to deliver the accessory liquid [[(18)]] in the form of a continuous jet from at least one said discharge outlet.

17. (currently amended) A coating-liquid spray system, comprising:
a liquid atomizer for spraying a coating liquid in form of a spray jet onto an object to be coated;

an accessory-liquid feed unit fitted with at least one discharge outlet for metering an accessory liquid into the spray jet; and

~~Spray system as claimed in claim 1, characterized in that it comprises a cooling unit for cooling [[(50)]] to cool at least one component [[(4)]] of the spray-system [[(2)]] by means of a fluid, cooled coolant [[(52)]], said system component [[(4)]] being adapted to be in contact with the coating liquid being delivered to be sprayed in form of said on its way to the spray jet [[(14)]] and being cold conducting having a thermal conductivity in order to cool the coating liquid with transmit cold from the coolant [[(52)]] onto the spray coating liquid.~~

B15
18. (currently amended) The [[Spray]] system as claimed in claim 17, characterized in that wherein the system component [[(4)]] comprises

a first portion site (10) which is adapted to be in contact with the coating spray coating liquid being delivered to be sprayed in form of said on its way to the spray jet; [[(14)]] and

a second portion site (54) which is not adapted to be in contact with the spray-coating liquid being delivered to be sprayed in form of said on its way to the spray jet; (14), and in that

wherein the cooling unit [[(50)]] is designed to feed configured to discharge the coolant on the second portion [[(52)]] to the out-of-contact site [[(54)]] of the system component [[(4)]].

19. (currently amended) The [[Spray]] system as claimed in claim 18, characterized in that wherein the liquid atomizer is a rotary atomizing element [[(4)]] which is crossed by the coating liquid and the first portion adapted to be in that the site [[(54)]] in contact with the coating liquid is an external, peripheral surface of the rotary atomizing element [[(4)]].

20. (currently amended) The [[Spray]] system as claimed in claim 17, ~~characterized~~
B15 ~~in that~~ wherein the coolant is a cooled gas.

21. (new) The method of claim 1, wherein said metering is performed during said spraying.
